

What is claimed is:

1. A protein defined in the following (A) or (B):

(A) a protein which has the amino acid sequence of
SEQ ID NO: 8 shown in Sequence Listing;

5 (B) a protein which has the amino acid sequence of
SEQ ID NO: 8 shown in Sequence Listing including
substitution, deletion, insertion, addition or inversion
of one or several amino acids, and constitutes an ABC
transporter.

10 2. A DNA which codes for a protein defined in the
following (A) or (B):

(A) a protein which has the amino acid sequence of
SEQ ID NO: 8 shown in Sequence Listing;

15 (B) a protein which has the amino acid sequence of
SEQ ID NO: 8 shown in Sequence Listing including
substitution, deletion, insertion, addition or inversion
of one or several amino acids, and constitutes an ABC
transporter.

20 3. The DNA according to Claim 2, which is a DNA
defined in the following (a) or (b):

(a) a DNA which comprises the nucleotide sequence
of nucleotide numbers 1 to 1101 of SEQ ID NO: 7 shown in
Sequence Listing;

25 (b) a DNA which is hybridizable with the
nucleotide sequence of nucleotide numbers 1 to 1101 of
SEQ ID NO: 7 or a probe prepared from the nucleotide
sequence under a stringent condition, and codes for a

09868338.061801

protein constituting an ABC transporter.

Sub A3 4. The DNA according to Claim 3, wherein the stringent condition is a condition in which washing is performed at 60°C and a salt concentration corresponding to 1 x SSC and 0.1 % SDS.

5. A protein defined in the following (C) or (D):

(C) a protein which has the amino acid sequence of SEQ ID NO: 9 shown in Sequence Listing;

(D) a protein which has the amino acid sequence of SEQ ID NO: 9 shown in Sequence Listing including substitution, deletion, insertion, addition or inversion of one or several amino acids, and has ATPase activity of ABC transporter.

6. A DNA coding for a protein defined in the following (C) or (D):

(C) a protein which has the amino acid sequence of SEQ ID NO: 9 shown in Sequence Listing;

(D) a protein which has the amino acid sequence of SEQ ID NO: 9 shown in Sequence Listing including substitution, deletion, insertion, addition or inversion of one or several amino acids, and has ATPase activity of ABC transporter.

7. The DNA according to Claim 6, which is a DNA defined in the following (c) or (d):

(c) a DNA which comprises the nucleotide sequence of nucleotide numbers 1117 to 1725 of SEQ ID NO: 7 shown in Sequence Listing;

09868338-061801

(d) a DNA which is hybridizable with the nucleotide sequence of nucleotide numbers 1117 to 1725 of SEQ ID NO: 7 or a probe prepared from the nucleotide sequence under a stringent condition, and codes for a protein having ATPase activity of ABC transporter.

Sub A4 → 8. The DNA according to Claim 7, wherein the stringent condition is a condition in which washing is performed at 60°C and a salt concentration corresponding to 1 x SSC and 0.1% SDS.

10 9. A protein defined in the following (E) or (F):
(E) a protein which has the amino acid sequence of SEQ ID NO: 10 shown in Sequence Listing;

(F) a protein which has the amino acid sequence of SEQ ID NO: 10 shown in Sequence Listing including
15 substitution, deletion, insertion, addition or inversion of one or several amino acids, and constitutes an ABC transporter.

10. A DNA coding for a protein defined in the following (E) or (F):

20 (E) a protein which has the amino acid sequence of SEQ ID NO: 10 shown in Sequence Listing;

(F) a protein which has the amino acid sequence of SEQ ID NO: 10 shown in Sequence Listing including
25 substitution, deletion, insertion, addition or inversion of one or several amino acids, and constitutes an ABC transporter.

11. The DNA according to Claim 10, which is a DNA

00868338.061801

defined in the following (e) or (f):

(e) a DNA which comprises the nucleotide sequence of nucleotide numbers 1759 to 2367 of SEQ ID NO: 7 shown in Sequence Listing;

5 (f) a DNA which is hybridizable with the nucleotide sequence of nucleotide numbers 1759 to 2367 of SEQ ID NO: 7 or a probe prepared from the nucleotide sequence under a stringent condition, and codes for a protein constituting an ABC transporter.

10 ~~Sub A5~~ 12. The DNA according to Claim 11, wherein the stringent condition is a condition in which washing is performed at 60°C and at a salt concentration corresponding to 1 x SSC and 0.1% SDS.

15 13. A DNA which comprises a nucleotide sequence coding for a protein having the amino acid sequence of SEQ ID NO: 8, a nucleotide sequence coding for a protein having the amino acid sequence of SEQ ID NO: 9 and a nucleotide sequence coding for a protein having the amino acid sequence of SEQ ID NO: 10.

20 14. The DNA according to Claim 13, which has the nucleotide sequence shown as SEQ ID NO: 7.

09868338.061801